

REMARKS

Reconsideration of the above-identified application, as amended, is respectfully requested.

In the Official Action dated August 22, 2005, which has been made FINAL, the Examiner finally rejected all claims 1-28 under 35 U.S.C. §102(a) as allegedly being anticipated by Imamura et al. reference entitled "Mapping between ASN.1 and XML" I.E.E.E., 8-12, January 2001 (hereinafter "Imamura"). The Examiner particularly alleges that Imamura discloses the XML data encoding method as set forth in the claims, e.g., independent Claims 1, 6, 11 and 16.

Applicant disagrees and respectfully requests entry of these amendments and remarks as they are intended to further clarify the operation of the invention and highlight the distinctions over the cited prior art reference. This response additionally addresses the Examiner's Response to Arguments and hence, could not have been earlier presented.

With respect to the rejection of Claims 1-28 under 35 U.S.C. §102(a), as being allegedly anticipated by Imamura, applicants respectfully disagree.

With respect to the rejection of independent Claims 1, 6 11 and 16, the Examiner took to task in the Response to Arguments section (pages 2 -4, ¶5 of the Final Rejection), the remarks and arguments presented in applicants prior response of May 24, 2005 in response to the first Office Action of February 24, 2005.

1) With respect to the Response to Arguments section (page 2, ¶5- 1) of the Final Rejection, the Examiner alleges that the features upon which applicant relies (i.e., conversion of XML into ASN.1 is executed by a Document Type Definition (DTD)) are not recited in the rejected claims. Applicants respond by clarifying that, in the present invention as clearly recited in Claim 1, it is a grammar definition (e.g., DTD) that is converted into an ASN.1

abstract syntax type (Step 2-1, Figure 1 of the present invention). The grammar definition defines the grammar of XML data and is not limited to DTD. For example, as discussed at page 12, lines 9-18, the DTD is one embodiment of a grammar for representing XML data structure however, other grammar representations may be used, e.g., XML Schema and "RELAX". It is respectfully noted that the Examiner's indication that Claim 1's recitation of converting into ASN.1 abstract syntax type a grammar definition for defining the grammar of XML data is allegedly taught by Imamura at left column of page 60 is incorrect. Imamura is directly concerned with translating an ASN.1 structured document into a corresponding XML document, and vice versa, subject to certain restrictions. As part of the routines developed by Imamura, a DTD is generated from ASN.1 abstract syntax definition (see Imamura, pg. 59, Sec. 3.3). Strictly speaking, this teaching of Imamura is opposite of the claimed element in Claim 1 which sets forth converting a grammar definition for defining the grammar of an XML data into an ASN.1 abstract syntax type.

2) With respect to the Response to Arguments section (page 3, ¶5-2) of the Final Rejection, the Examiner alleges that the features upon which applicant relies (i.e., *remove the XML content text of a syntactic element*) are not recited in the rejected claims. Applicants respond by clarifying that, in the present invention as clearly recited in Claim 1, it is not so much the removal of text that is necessary, but the separating of the XML data into contents comprising text of a syntactic element and a structure representing the syntactic element comprising an element name including the structure that is being performed. Respectfully no new matter is being added by the amendment to this element of Claim 1 as clearly pg. 13, lines 19-23 describes a separation unit performing a separation step (Step 2-2, Figure 1) that separates XML data into contents (text) of the element and the structure (the element name and the structure) as now

clearly set forth in amended Claim 1. Thus, while applicants argued that the XML content text is "removed" it is actually parsed and separated out. It appears that Imamura does not teach this feature of separating XML content into component contents (text) and structure.

3) With respect to the Response to Arguments section (page 4, ¶5- 3) of the Final Rejection, the Examiner alleges that the claims (Claims 1, 6, 11 and 16) broadly recite steps of compression and combining steps or the decompressing and combining steps and alleges that Imamura clearly discloses these broadly claimed limitation at pp. 61-62 Sec. 4.2 and pages 62-63 Sec. 5.2, specifically the encoding (compressing) and decoding (decompressing) of the data. Applicants respectfully disagree. While it is true that Imamura discloses an encoding and decoding technique, applicants are hard-pressed to find any teaching or disclosure that indicates a compression/decompression is taking place. Imamura is directed to translating a first grammar-based meta-language framework for tree-structured data (i.e., ASN.1) into a second grammar-based meta-language framework for tree-structured data (i.e., XML). There is absolutely no teaching or suggestion in Imamura in the Imamura paragraphs cited by the Examiner that any sort of compression or decompression is being performed. Thus, it is respectfully submitted that Imamura does not teach or suggest the amended Claim 1 elements of compressing said text contents of said syntactic element; and combining the compressed text contents of said syntactic element and said ASN.1 transfer syntax to thereby generate encoded XML data (respectively, Steps 2-5 and 2-6, Figure 1). Likewise, nor does Imamura teach or suggest the amended Claim 6 elements of decompressing said compressed text contents of said compressed syntactic element; and combining the decompressed text contents of said syntactic element and said XML data structure (respectively, Steps 3-6 and 3-4, Figure 2)

It is a stated objective of the applicants invention to overcome problems

associated with XML compression methods (e.g., Xcomp) as currently exist in the art. Thus, the present invention is directed to a system and method for encoding XML data (XML documents) that ensures a higher compression efficiency than methods currently used (See present specification, page 6, lines 23-26). Imamura is not directed, nor even addresses the problems in the art that the present invention is directed to. Moreover, one stated deficiency in the XML document compression arts is that compression efficiency is reduced when XML data having highly specific structure is compressed (e.g., using Xcomp). This compression efficiency reduction is particularly acute when certain operators of the XML document are present, e.g., the ",", "|", "?", "*" and "+" operators that are used for designating the order in which the child elements in the element contents appear, and the appearance frequencies of the elements. Respectfully, rejected originally filed Claims 3, 8, 13 and 18 respectively dependent upon amended Claims 1, 6, 11 and 16, set forth treatment of these element contents. Respectfully, Imamura provides no teaching or suggestion as to how these elements should be treated or handled in order to increase compression efficiency of XML documents as in the present invention. While Imamura appears to suggest (page 60, Table 1 of Imamura) that a correspondence exists between ASN.1 abstract syntax definition and a DTD, this is only in the context of a specific translation and does not even appear to address compression efficiency issues as the present invention addresses. Moreover, Imamura clearly admits that it is intended that as much information as possible be provided in the DTD (Imamura pg. 60, Sec. 4.1.1) in order to convert from ASN.1 data to XML document (which is essentially antithetical to performing a compression) and that it may be necessary to omit or limit the range of values as expressed in the ANS.1 syntax definition to be converted.

In view of the foregoing amendment and remarks, applicant respectfully requests

that the Examiner to withdraw the rejection of each of independent Claims 1, 6, 11 and 16 based on 35 U.S.C. §102(a) as certain elements of the claims are clearly not taught or described in Imamura and to withdraw the rejection of all claims dependent thereon.

In view of the foregoing remarks herein, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance be issued. If the Examiner believes that a telephone conference with the Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned, Applicants' attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,



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